

## **Exhibit 22**

### **Omnibus Mao Declaration**

**MATERIALS SOUGHT TO  
BE FILED UNDER SEAL**

Hi everyone -

The AP story on location history was widely circulated this morning and triggered +250 original stories across tech, business, and security outlets. Across social, we've seen 12,700 mentions, with averages remaining close to 1,500 mentions per hour - indicating that this story has not yet run out of steam today. For context, we saw approximately 2,000 mentions/hour during the peak of the Dragonfly cycle two weeks ago.

More than 30 reporters asked for comment, which we revised to focus on Location History and not incite another negative cycle about Web and App Activity. This strategy appears to be working as the volume of press inquiries are slowing. Ads mentions have been minimal -- pulling from the original AP story. Policy makers, including Senator Warner, have been very vocal (see below). Wired notes that people are calling for an FTC investigation (running global coverage doc).

### Policy-influencer reactions

#### **Ashkan Soltani (Former Chief Technologist, FTC // security consultant on 2012 Safari issue)**

#1: Devices continue to track user's location even when a user turns off 'Location History'.

#2: This is the confusing privacy dialogue from @google may land another @FTC inquiry.

**Senator Mark Warner:** *"If a Google user disables location services, it is perfectly reasonable for that person to expect that apps will not continue tracking their location," Warner, the top Democrat on the Senate Intelligence Committee, said in a statement. "Unfortunately, it is frustratingly common for social media companies to have corporate practices that diverge wildly from the totally reasonable expectations of their users." - Politico*

**Jonathan Mayer (former chief technologist for FCC // lead researcher for 2012 Safari issue):** "If you're going to allow users to turn off something called 'Location History,' then all the places where you maintain location history should be turned off," Mayer said. "That seems like a pretty straightforward position to have." - *Quoted in AP story*

**Justin Brookman (Consumer Reports // ex-FTC):** "I turned off Google Location History years ago, but just checked my phone and somehow the setting had been turned back on. ☐" Also tweeted images of help center.

### Current press statement:

*"Location History is a Google product that is entirely opt in, and users have the controls to edit, delete, or turn it off at any time. As the story notes, we make sure Location History users know that when they disable the product, we continue to use location to improve the Google experience when they do things like perform a Google search or use Google for driving directions."*

We're also pointing press to our policy page about Location History as additional background.

We will send a wrap-up by EOD.

-Aaron, Elisa, and Gen

Note to execs (5:45am PT, :

The AP story ran around 1am PT today.

As expected it's negative and the angle is we track even if Location History is off. Similar narrative to other stories (e.g. Quartz) but this time goes deeper into Web and App Activity (WAA) as the "how". Story is pinned to the Berkeley researcher's report and includes tests that they asked Jonathan Mayer, a Princeton researcher to do, his earlier research sparked the Safari cookie (Project Blue) controversy. Story also speculates that we do this for ads targeting purposes, pointing to Google Marketing Live's announcement of "local campaigns" as a recent example since these campaigns help drive local foot traffic based on location.

So far syndicated stories have run in Axios, CNBC, Washington Post, NYT and local outlets. AP also posted a guide on how to find and delete info Google has on you.

We'll continue to track and forward a report at the end of the day.

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Monday, August 13

SAN FRANCISCO (AP) — Google wants to know where you go so badly that it records your movements even when you explicitly tell it not to.

An Associated Press investigation found that many Google services on Android devices and iPhones store your location data even if you've used privacy settings that say they will prevent it from doing so. Computer-science researchers at Princeton confirmed these findings at the AP's request.

For the most part, Google is upfront about asking permission to use your location information. An app like Google Maps will remind you to allow access to location if you use it for navigating. If you agree to let it record your location over time, Google Maps will display that history for you in a "timeline" that maps out your daily movements.

Storing your minute-by-minute travels carries privacy risks and has been used by police to determine the location of suspects — such as a warrant that police in Raleigh, North Carolina, served on Google last year to find devices near a murder scene. So the company will let you "pause" a setting called Location History.

Google says that will prevent the company from remembering where you've been. Google's support page on the subject states: "You can turn off Location History at any time. With Location History off, the places you go are no longer stored."

That isn't true. Even with Location History paused, some Google apps automatically store time-stamped location data without asking.

For example, Google stores a snapshot of where you are when you merely open its Maps app. Automatic daily weather updates on Android phones pinpoint roughly where you are. And some searches that have nothing to do with location, like “chocolate chip cookies,” or “kids science kits,” pinpoint your precise latitude and longitude — accurate to the square foot — and save it to your Google account.

The privacy issue affects some two billion users of devices that run Google's Android operating software and hundreds of millions of worldwide iPhone users who rely on Google for maps or search.

Storing location data in violation of a user's preferences is wrong, said Jonathan Mayer, a Princeton computer scientist and former chief technologist for the Federal Communications Commission's enforcement bureau. A researcher from Mayer's lab confirmed the AP's findings on multiple Android devices; the AP conducted its own tests on several iPhones that found the same behavior.

“If you're going to allow users to turn off something called ‘Location History,’ then all the places where you maintain location history should be turned off,” Mayer said. “That seems like a pretty straightforward position to have.”

Google says it is being perfectly clear.

“There are a number of different ways that Google may use location to improve people's experience, including: Location History, Web and App Activity, and through device-level Location Services,” a Google spokesperson said in a statement to the AP. “We provide clear descriptions of these tools, and robust controls so people can turn them on or off, and delete their histories at any time.”

To stop Google from saving these location markers, the company says, users can turn off another setting, one that does not specifically reference location information. Called “Web and App Activity” and enabled by default, that setting stores a variety of information from Google apps and websites to your Google account.

When paused, it will prevent activity on any device from being saved to your account. But leaving “Web & App Activity” on and turning “Location History” off only prevents Google from adding your movements to the “timeline,” its visualization of your daily travels. It does not stop Google's collection of other location markers.

You can delete these location markers by hand, but it's a painstaking process since you have to select them individually, unless you want to delete all of your stored activity.

You can see the stored location markers on a page in your Google account at [myactivity.google.com](https://myactivity.google.com), although they're typically scattered under several different headers, many of which are unrelated to location.

To demonstrate how powerful these other markers can be, the AP created [a visual map](#) of the movements of Princeton postdoctoral researcher Gunes Acar, who carried an Android phone with Location history off, and shared a record of his Google account.

The map includes Acar's train commute on two trips to New York and visits to The High Line park, Chelsea Market, Hell's Kitchen, Central Park and Harlem. To protect his privacy, The AP didn't plot the most telling and frequent marker — his home address.

Huge tech companies are under increasing scrutiny over their data practices, following a series of privacy scandals at Facebook and new data-privacy rules recently adopted by the European Union. Last year, the business news site Quartz found that Google was tracking Android users by collecting the addresses of nearby cellphone towers even if all location services were off. Google changed the practice and insisted it never recorded the data anyway.

Critics say Google's insistence on tracking its users' locations stems from its drive to boost advertising revenue.

"They build advertising information out of data," said Peter Lenz, the senior geospatial analyst at Dstillery, a rival advertising technology company. "More data for them presumably means more profit."

The AP learned of the issue from K. Shankari, a graduate researcher at UC Berkeley who studies the commuting patterns of volunteers in order to help urban planners. She noticed that her Android phone prompted her to rate a shopping trip to Kohl's, even though she had turned Location History off.

"So how did Google Maps know where I was?" she asked in a blog post.

The AP wasn't able to recreate Shankari's experience exactly. But its attempts to do so revealed Google's tracking. The findings disturbed her.

"I am not opposed to background location tracking in principle," she said. "It just really bothers me that it is not explicitly stated."

Google offers a more accurate description of how Location History actually works in a place you'd only see if you turn it off — a popup that appears when you "pause" Location History on your Google account webpage. There the company notes that "some location data may be saved as part of your activity on other Google services, like Search and Maps."

Google offers additional information in a popup that appears if you re-activate the "Web & App Activity" setting — an uncommon action for many users, since this setting is on by default. That popup states that, when active, the setting "saves the things you do on Google sites, apps, and services ... and associated information, like location."

Warnings when you're about to turn Location History off via Android and iPhone device settings are more difficult to interpret. On Android, the popup explains that "places you go with your devices will stop being added to your Location History map." On the iPhone, it simply reads, "None of your Google apps will be able to store location data in Location History."

The iPhone text is technically true if potentially misleading. With Location History off, Google Maps and other apps store your whereabouts in a section of your account called “My Activity,” not “Location History.”

Since 2014, Google has let advertisers track the effectiveness of online ads at driving foot traffic , a feature that Google has said relies on user location histories.

The company is pushing further into such location-aware tracking to drive ad revenue, which rose 20 percent last year to \$95.4 billion. At a Google Marketing Live summit in July, Google executives unveiled a new tool called “local campaigns” that dynamically uses ads to boost in-person store visits. It says it can measure how well a campaign drove foot traffic with data pulled from Google users' location histories. Google also says location records stored in My Activity are used to target ads. Ad buyers can target ads to specific locations — say, a mile radius around a particular landmark — and typically have to pay more to reach this narrower audience.

While disabling “Web & App Activity” will stop Google from storing location markers, it also prevents Google from storing information generated by searches and other activity. That can limit the effectiveness of the Google Assistant, the company's digital concierge.

Sean O'Brien, a Yale Privacy Lab researcher with whom the AP shared its findings, said it is “disingenuous” for Google to continuously record these locations even when users disable Location History. “To me, it's something people should know,” he said.

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AP Interactive: <https://interactives.ap.org/google-location-tracking/>